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Study on the long-term accommodation needs at United Nations Headquarters for the period from 2014 to 2034

Report of the Secretary-General

Summary

Pursuant to section III of General Assembly resolution 67/254 A, the present report provides information requested on the long-term accommodation needs of the United Nations in New York, including the consideration of options not previously considered. The report provides an update on the population of the Secretariat and other offices, with and without the staff of funds and programmes anticipated to co-locate with the Secretariat, the impact of the implementation of flexible workplace strategies, information on the sequencing of United Nations construction projects, information on the short- and long-term financing alternatives for each option, a consideration of the potential impact on the architectural integrity of the United Nations compound, an analysis of the target ratio of owned versus leased space and information on options for the renovation of the South Annex Building and the Dag Hammarskjöld Library Building.

The total population forecast of the Secretariat and other offices, funds and programmes staff expected to require accommodation is 9,593 in 2018, assuming a no-growth scenario, of which 850 are from the funds and programmes. As set out in the report of the Secretary-General on flexible workplace (A/68/387), the implementation of flexible workplace strategies is anticipated to reduce the overall space requirement by 20 per cent. Taking this into account, the total off-campus space requirement, in a no-growth population scenario, is approximately 1,109,311 square feet, which includes office space, shared amenities and building support spaces.

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In addition to the four options considered in previous reports, six additional options have been considered in the present report. Ultimately, only three options have been considered viable and advantageous for the Organization, and have been financially analysed in detail. They are: (a) North Lawn assessment; (b) United Nations Development Corporation (DC-5) lease-to-own; and (c) status quo leasing.

Of the three options, in a no-growth population scenario, the North Lawn option is the least costly, at $3.528 billion; the DC-5 option is $4.083 billion; and the status quo option is the most costly, at $4.551 billion. All costs set out above are in 2014 net present value terms. All costs include consideration of one-time capital costs, and operational costs through 2064 (50 years from 2014, the starting point of the study).

In addition to cost issues, non-quantifiable criteria are also considered, including the intangible benefits of ownership, such as the potential productivity gains of consolidating staff into an integrated campus and of providing high-quality office conditions. The report also includes the findings of the experts who considered the issue from the viewpoint of the architectural integrity of the United Nations compound.

The General Assembly is invited to take note of the report, to approve the most preferred option and to authorize the Secretary-General to take the steps necessary for implementation.

I. Introduction

1. In section III of its resolution 67/254 A, the General Assembly requested the Secretary-General to submit a new report on the United Nations Headquarters long-term accommodation needs, including the following information:

(a) Comprehensive information on all viable options, including additional options not adequately considered or developed in the report of the Secretary-General (A/67/720), ensuring that all options are treated equally, while seeking the most favourable terms for the Organization in all cases;

(b) Total population figures with and without the staff of the participating funds and programmes and the financial consequences of the cost-sharing arrangements with them;

(c) The impact of the implementation of flexible work arrangements on the capacity of the buildings at the Headquarters compound;

(d) The sequencing of the United Nations construction projects;

(e) Short- and long-term financing alternatives for each option, the direct and indirect cost of each option, the net present value of each option, along with the residual value of new construction where relevant, and the legal and other risks associated with each option;

(f) The potential impact on the architectural integrity of the United Nations compound;

(g) An analysis of the preferable ratio of owned versus leased space for the Organization and possible developments in the planning for the future of the Organization;

(h) Information and options, as well as financial implications, on the renovation of the South Annex Building and the Dag Hammarskjöld Library Building, ensuring that the commemorative value of the Dag Hammarskjöld Library is respected.

II. Key assumptions and estimated space requirement

A. Population figures

2. The starting point for the study of the long-term accommodation needs for the period from 2014 to 2034 was a review of the total population of the United Nations located in New York. The population includes staff, consultants, interns, associate experts and contractors requiring long-term accommodation, from the Secretariat as well as participating funds, programmes, other offices and specialized agencies. In this connection, the Secretariat has included population figures from those United Nations entities currently accommodated by the Secretariat, including the United Nations Development Programme (UNDP), which, even though expected to downsize in New York, is anticipated to continue to have the largest non-Secretariat population, to take into account in the consideration of long-term accommodation needs. Following discussions, UNDP has confirmed that it is willing in principle to co-locate with the Secretariat if this reduces the Programme's long-term

accommodation costs while providing a suitable, efficient and high standard of sustainable offices. Other funds and programmes currently located in New York, including the United Nations Population Fund, the United Nations Office for Project Services and the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women) have either just recently entered into or will soon enter into long-term commercial leases, and are not considered candidates to participate in the Secretariat's long-term accommodation strategy.

3. Another key factor is determining whether this population is housed in currently owned or leased property and projecting future scenarios for owned and leased properties. Properties currently owned and operated by the United Nations include the Headquarters complex, located at 405 E. 42nd Street, and the United Nations Institute for Training and Research Building, located at 801 United Nations Plaza. The breakdown of populations at Headquarters is reflected in table 1 below.

Table 1
Breakdown of populations

	2012 (according to A/67/720)	*2013 (current population)*	
		Secretariat and other offices	*Secretariat, other offices and funds and programmes*
A. Population at Headquarters (by entity)			
United Nations departments	8 521	8 516	8 516
Other offices	–	227[a]	227[a]
Funds and programmes	2 320	–	850[b]
Total	**10 841**	**8 743**	**9 593**
B. Population in United Nations-owned property and non-seated positions			
On campus/owned	4 132	3 898	3 898
Non-seated	771	937[c]	937[c]
Total	**4 903**	**4 835**	**4 835**
C. Headquarters total population requiring seating outside United Nations-owned property: A-B	**5 938**	**3 908**	**4 758**

[a] 227 total staff from approximately 20 small other offices, which currently sub-lease space from the Secretariat in rental space outside of the campus, have been included in the study.
[b] Comprises the projected staff of UNDP (see paras. 2 and 13).
[c] The change in number of non-seated staff from 2012 to 2013 relates not to changes in actual staffing levels, but to a revised count, following the completion and repopulation of several subprojects in the basement and the Conference Building as part of the capital master plan.

B. Flexible workplace

4. As set out in his report on the implementation of a flexible workplace at United Nations Headquarters (A/68/387), the Secretary-General intends to implement flexible workplace strategies that will have an impact on the overall

office accommodation requirements of the Organization. The term "flexible workplace" describes the arrangements of physical space, technology and other programmes that support a more flexible and mobile way of working. The most common components of a flexible workplace are telecommuting, desk-sharing, hotelling and hot-desking.

5. The implementation of a flexible workplace would bring about a more mobile and modern way of working through an upgrade of technological support and physical space as well as the provision of training programmes and policies to enable flexible working. The implementation of flexible workplace, therefore, requires the reconfiguration of the existing workspace, investment in information and communications technology, putting in place supportive human resources systems and policies and a strong engagement and communication strategy to ensure that the deployment of this change management initiative meets the varying needs of different parts of the Organization and benefits from a broad buy-in that will help to ensure increases in productivity. A flexible workplace offers the potential for the Organization to further its goals of working more effectively and efficiently and builds on the principles of other transformative initiatives under way at the United Nations, such as Umoja, the International Public Sector Accounting Standards (IPSAS) and flexible working arrangements. For clarification, the term "flexible working arrangements" refers to the current human resources policy whereby staff may opt to work from home or maintain an alternative work schedule (see Secretary-General's bulletin ST/SGB/2003/4).

6. In the previous report of the Secretary-General on long-term accommodation requirements (A/67/720), it was assumed that flexible workspace strategies could eventually lower the gross square footage allowance per workspace by around 10 per cent from post-capital master plan conditions to 200 gross square feet per person. That planning figure was used to estimate overall space requirements. As stated in the Secretary-General's report on the implementation of a flexible workplace (A/68/387), the planning assumption on the impact of a flexible workplace has been revised to 20 per cent, and the new baseline of 176 gross square feet per workspace is being used in the present report.

7. A follow-up report on the implementation of a flexible workplace will be submitted to the General Assembly at its sixty-ninth session and will include a detailed business case. It is not expected that the outcome of the business case will have a significant impact on the planning assumptions set out in the present report.

8. The flexible workplace will be implemented across the whole population in New York, in both the owned and leased spaces. Across the whole office space portfolio, a savings of 20 per cent will be achieved, driving a significant reduction in requirements for leased space.

9. For planning purposes, it is assumed that by 2018, flexible workplace strategies will be applied to the typical office floors of the Secretariat building, floors 8 to 38, and the population housed on those floors will increase by approximately 630 staff. Accordingly, the United Nations would expect to terminate or not renew current leases for accommodating the equivalent number of staff.

10. By 2023, it is assumed that flexible workplace strategies will also be applied to leased spaces, increasing the utilization of those spaces by a further 630 staff. The target date for realizing space savings from flexible workplace strategies in leased

spaces is later than on campus because, for planning purposes, it is assumed that swing space will be required to make capital improvements to existing leased spaces. In addition, it may be most advantageous to make modifications at the beginning of new lease terms and/or in newly leased spaces.

11. The overall reduction in the office space portfolio would be reduced by 20 per cent by 2023, assuming the no-growth population scenario.

12. By 2018, the total population at Headquarters is estimated to amount to 9,593 persons in a no-growth scenario, out of which 850 are from participating funds and programmes. The number of staff of participating funds and programmes has been reduced as compared with the figures included in the previous report (A/67/720).

13. UNDP is planning to redeploy staff currently located in New York to other locations, with a target of approximately 850 remaining by 2017. A total of 227 staff from approximately 20 small other offices, which currently sub-lease space from the Secretariat in rental space outside of the campus, have been included in the study. Other funds and programmes currently located in New York, including the United Nations Population Fund, the United Nations Office for Project Services and UN-Women, have either just recently entered into or will soon enter into long-term commercial leases and are not considered candidates to participate in the Secretariat long-term accommodation strategy.

Table 2
Breakdown of population assumptions after the planned implementation of flexible workplace strategies, by 2018

	Secretariat and other offices	*Secretariat, other offices and funds and programmes*
A. Population at Headquarters (by entity)		
United Nations departments	8 516	8 516
Other offices	227	227
Participating funds and programmes	–	850
Total	**8 743**	**9 593**
B. Population in United Nations-owned property and non-seated positions		
On campus/owned	4 528	4 528
Non-seated	937	937
Total	**5 465**	**5 465**
C. Headquarters total population requiring seating outside United Nations-owned property: A-B	**3 278**	**4 128**

C. Population scenarios

14. As in the previous report, three scenarios are projected for the future accommodation needs:

(a) The "1.1 per cent annual growth rate" scenario, which is based on a continuation of the historical trend of the past 20 years, and includes a net impact of both increases and decreases in programming;

(b) The "no-growth rate" scenario assumes that possible future programme increases and decreases would remain without net impact on the overall requirements;

(c) Under the "0.5 per cent annual decline rate" scenario, programme increases and decreases would be offset partially by factors such as changes in work practices.

15. The three population scenarios described above have been projected to estimate the population requiring seating outside the United Nations-owned premises between 2014 and 2034.

16. The breakdown of population scenario projections is shown in table 3 below.

Table 3
Population scenario projections: required seating outside the United Nations owned premises

	2013	*2018*	*Population (percentage)*	*2018*	*2023*	*2034*
			1.1	3 717	4 180	5 294
Secretariat and other offices — off campus/leased	3 908	3 278	No growth	3 278	3 278	3 278
			-0.5	3 085	2 896	2 498
			1.1	4 615	5 129	6 364
Secretariat, other offices and funds and programmes — off campus/leased	4 758	4 128	No growth	4 128	4 128	4 128
			-0.5	3 914	3 705	3 263

D. Own-to-lease ratio in the overall real estate portfolio

17. The purpose of establishing an ideal or a target own-to-lease ratio is to maximize the benefits of ownership of real estate for the organization, which include the ability to consolidate staff, thereby increasing efficiency of space management and increasing the overall quality of the physical work environment. At the same time, the target ratio allows for an appropriate and advantageous amount of flexibility. Specifically, it allows the Secretariat to shed space and reduce costs relatively quickly in response to periods of downsizing.

18. The first feasibility study (A/66/349) looked at historical staff population figures for Headquarters and the funds and programmes in New York, where known. Figures dating back to 1992 were available from the Office of Human Resources

Management and other historical figures were captured for the funds and programmes. The Secretariat figures show variable patterns of growth and decline. Looking at short declines, for example from 1994 to 1998, staff numbers dropped from 5,967 to 5,008, or a 16 per cent reduction. It is noted that these historical staff numbers do not include figures for some temporarily mandated positions, nor for consultants and contractors. It is also noted that, whereas short declines have occurred, the overall historical trend has been a 1.1 per cent growth (see para. 14 above).

19. In the light of the historic variability of Headquarters staff numbers, the general economic climate, and the Secretary-General's vision regarding the United Nations presence in New York, it would seem prudent to retain a proportion of leased space to accommodate the varying population.

20. The ideal target own-to-lease ratio, when considering new construction options, is around 80 per cent owned and 20 per cent leased. Given that staffing levels are fluid and the proportion of owned space changes infrequently, the target scenario for realizing this idealized ratio is the no-growth staffing scenario in the year 2018. The ratio would vary depending on the option chosen and the population at a given point in time, as illustrated in table 6 below. The current ratio of owned to leased space in the real estate portfolio of the Secretariat is 52 per cent to 48 per cent. This can be expected to move closer to the target ratio with the implementation of a flexible workplace and would increase further, should the General Assembly approve options 1 or 3.

E. Estimated space needs

21. The space requirements for the various scenarios have been calculated using the workspace allowance of 176 gross square feet per person, which assumes the implementation of flexible workplace strategies. The office space requirements for the three population projection scenarios are shown in table 4 below. In addition to these basic office space requirements, other required programmatic elements are common conference rooms, library, cafeteria, other United Nations programmes and building support, mechanical and the displaced programme functions of the Dag Hammarskjöld Library Building and the South Annex Building.

22. The required areas are less than described in the previous report, owing to the application of flexible workplace strategies and the lower projected number of staff from participating funds and programmes.

Table 4
Total projected off-campus office space requirements in 2018
(Gross square feet)

Population scenario	*Office space: Secretariat and other offices only*	*Office space: Secretariat, other offices and funds and programmes*	*Common space*	*Total space: Secretariat, other offices and funds and programmes*
No growth	604 337	756 997	352 317	1 109 314
1.1 per cent growth	1 037 148	1 189 808	352 317	1 542 125
0.5 per cent decrease	436 903	589 563	352 317	941 880

23. For options 1 and 3, entailing the construction of a new owned building, the total space requirements outside the Secretariat campus would be met by a combination of 816,337 gross square feet owned space and the remainder in leased space, according to the target own-to-lease ratio. For option 4, total space requirements outside the Secretariat campus would be met entirely in leased space.

III. Comparative analysis

A. Overview of studied options

24. A thorough analysis of all feasible options has been undertaken. In addition to the four options previously considered, the search has been broadened to include six additional options. All options are considered and evaluated against the following criteria:

(a) Potential ownership rights to the building (or buildings) and land;

(b) Size of the building, in consideration of both the currently projected requirements and the ability to accommodate changes in future requirements;

(c) Building efficiency, which is a factor of the size of the available plots of land and the layout of the building floor plans;

(d) Proximity to the Headquarters campus;

(e) Representation of United Nations status and values;

(f) Architectural integrity of the original United Nations campus;

(g) Cost considerations.

B. Introduction of each studied option

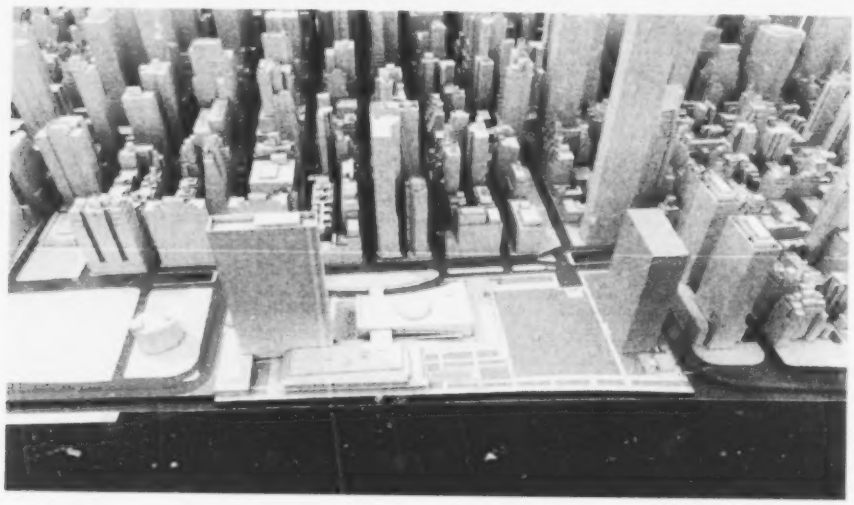
Options 1 and 2

25. Both options 1 and 2 propose the construction of a new high-rise building on the North Lawn. The difference between option 1 and option 2 is the funding modality. Option 1 would be funded by a special assessment from Member States, whereas under option 2, the construction would be financed by a third party. The timing of each option varies, based on the funding mechanism and the directive from the General Assembly that the construction of multiple major capital expenditure projects should not be undertaken simultaneously. Accordingly, option 1 could not begin until the completion of the strategic heritage plan, foreseen for 2023, in accordance with General Assembly resolution 68/247, in which the Assembly reiterated that the Secretary-General must ensure that major capital expenditure projects are not implemented simultaneously, in order to prevent the need to finance and supervise them at the same time. Option 1 is deemed viable and is included in the report. However, matters relating to architectural integrity and the findings of the architectural historic preservation experts, discussed in paragraphs 39 to 48 below, would need to be taken into account.

26. While option 2 was initially understood to be a viable option, the Secretariat is now advised that given the privileges and immunities and legal status of the United

Nations, it would be difficult for the Organization to enter into a commercial borrowing arrangement to finance the construction. Such a borrowing arrangement would require the authorization of the General Assembly. Moreover, the Organization cannot offer collateral against which a bond issuer could execute in the event of default. Therefore, there is no financial market for this kind of loan arrangement, and the option is therefore not commercially viable. For these reasons, option 2 is deemed not viable and therefore not analysed in further detail. A perspective view of the North Lawn building is shown in figure I below.

Figure I
Perspective of North Lawn building



Option 3

27. Option 3 proposes the construction of a new high-rise office tower on the plot of land south of the United Nations campus, known as either the United Nations consolidation building or DC-5. This option would be undertaken not by the United Nations, but by the United Nations Development Corporation, which proposes to finance construction through the issuance of bonds, to be redeemed through United Nations rent payments over an agreed term (for planning purposes, 30 years is assumed) under a rent-to-own arrangement. The building would be connected to the United Nations campus through a pedestrian tunnel. The planning process for the original DC-5 building size, a total of 931,500 gross square feet, is well advanced, in line with the schedule set out in the memorandum of understanding, which sets a deadline for the end of 2015 for completing the transaction of land. The timing of this option is such that construction could begin in 2016 for an occupancy date in 2018.

28. However, with the implementation of flexible workplace strategies and the new baseline of 176 gross square feet per workspace, it has been concluded that the original DC-5 building size would exceed the United Nations expected requirements, and that a building 816,337 gross square feet in size would be in line with requirements. Furthermore, the current memorandum of understanding between

the Corporation and the City of New York would require the United Nations to exercise its option to continue leasing DC-1 and DC-2 between 2018 and 2023. However, in the light of changed expectations of space needs based on revised population scenarios, the Secretariat has advised the Corporation that it cannot commit to this provision of the current memorandum of understanding.

29. Option 3 is deemed viable, provided that the memorandum of understanding is revised, and has been financially analysed in detail in the report. A perspective view of the building is shown in figure II below.

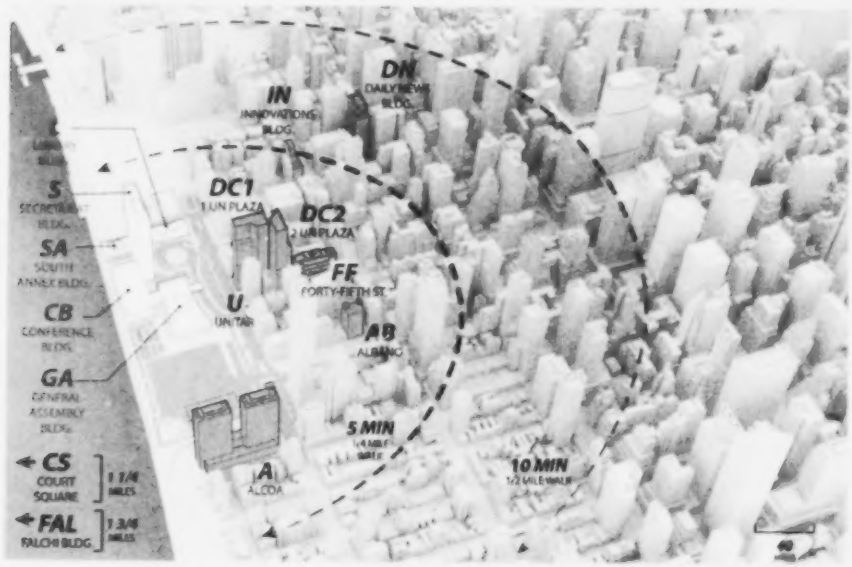
Figure II

Perspective of the United Nations consolidation building (DC-5)

Option 4

30. Option 4 is referred to as the "status quo" option. Off-campus accommodation needs would continue to be met through commercial leases. In the absence of other suitable accommodation currently available, it is assumed that this option would entail the continued leasing of the DC-1 and DC-2 buildings. The current leases, which are now far below market rate, will expire in 2018, although the Secretariat has the option to extend to 2023 on similar terms as today. After 2023, the Corporation intends to either sell or refinance the property. As a consequence, it is assumed that leased space would be available at commercial rates. Option 4 is deemed viable and is included in the report. A perspective view of the United Nations leased property inventory is shown in figure III below.

Figure III
Perspective view of the current United Nations leased property inventory



Option 5

31. Option 5 is a new option under the present study, the purchase of the DC-1 and/or DC-2 buildings. The Corporation intends to sell or refinance the DC-1 and DC-2 buildings as of the expiration of the lease agreement with the United Nations, for whichever terms are most favourable to the Corporation. Although the United Nations would be eligible to consider purchasing one or both of the buildings at that time, several key factors make this option not viable. First, the buildings are likely to be converted from commercial to residential use; as offers for residential use would likely be higher than for commercial use, based on current market research. In any event, it is unlikely that the United Nations will be in a position to outbid commercial users. Secondly, the DC-1 Building includes a hotel, which is not owned by the Corporation, but by another owner, which complicates the maintenance arrangements for the building. Lastly, the buildings, constructed in the early 1970s, are now 40 years old and would require significant capital improvements in order to become a viable long-term investment for the Organization.

32. Although a detailed conditions study was not performed, on the basis of the experience of the Organization as a tenant in the buildings, and relevant technical experience from buildings of similar age and construction typology, it would be expected that the primary electrical, heating, ventilation and air-conditioning systems would require replacement; improvements relating to building and fire codes would be required; and the exterior glass curtain wall would require extensive repairs, and possibly replacement. A capital project would therefore be required, entailing vacating all or parts of the building and moving into "swing space"

elsewhere. Accordingly, option 5 is deemed not viable and is therefore not analysed in further detail.

Option 6

33. Option 6 is also a new option under the study: construction of a new building on the site of the current Dag Hammarskjöld Library Building, labelled "South Zone" in figure IV below. As described in the previous report (A/67/720, sect. V) and in the eleventh annual progress report of the Secretary-General on the implementation of the capital master plan (A/68/352, sect. IX), the current security environment, combined with the nature of construction of the existing buildings, renders their long-term use not feasible. While a new building could be built on the site, that option has been studied on a preliminary basis, and several challenges have emerged. The full site under consideration includes both the grounds of the existing South Annex Building and the Library Building. The building site is small; it directly abuts the existing Secretariat building, is bifurcated by a city-owned access tunnel between the South Annex Building and the Library Building and is adjacent to First Avenue and 42nd Street. Therefore, the buildable area is significantly constrained, and it is not feasible to build a new building that is the same size or efficiency as either of the other sites on or near campus, namely, the North Lawn and DC-5 sites. While it might be feasible to build a significantly smaller building, this would not be the most efficient and cost-effective option, owing to the extensive security blast design requirements that would be required on the floors near street level. Against this background, it has been deemed that option 6 is not viable and is therefore not analysed in further detail.

Options 7 (a), 7 (b) and 7 (c)

34. In the analysis, three new possible variations are included under the overall heading of option 7 that considers properties inside or outside a 20-minute walking radius from the United Nations campus, in one of New York City's other boroughs, or elsewhere within the tri-state area. It should be noted that these particular developments are presented purely on an indicative basis, as the New York City real estate market changes frequently. The developments included in the present report are available at the time of the drafting of the report, but may not be available when a decision on the United Nations Headquarters long-term accommodation is made by the General Assembly.

35. Option 7 (a) is an option to rent consolidated space within an existing commercial building in midtown Manhattan, following a general review of current market availability. That option does not differ greatly from option 4, status quo, except that it could provide the Organization with an opportunity to consolidate a larger number of staff in one building. This option is not considered commercially advantageous relative to the status quo, given that leasing costs in this commercial zone are roughly 12 per cent higher than in the area immediately surrounding the United Nations campus. However, should the General Assembly decide that the United Nations should pursue the status quo option, the Secretariat would consider leasing options in Midtown Manhattan, should these prove financially advantageous at that time.

36. Option 7 (b) is an option to rent consolidated space in a planned commercial development near Pennsylvania Station on the West Side of Manhattan. This option

is very similar to option 7 (a), but because it is a new building, would afford the United Nations greater control over the space itself, as it would be a build-to-suit arrangement. However, this option would also be more expensive than the status quo option.

37. Option 7 (c) is an option to rent consolidated space within a planned commercial development in the tri-state area, near public transportation. This option is similar to the previous two, but again does not offer any significant advantage over the status quo option, though it includes the disadvantages of being far from the Headquarters campus, thereby creating potential logistical issues for staff needing to liaise closely with colleagues and/or needing access to the physical resources located in the Secretariat Building.

Option 8

38. Option 8 is an option to purchase a parcel of land near the United Nations campus, or elsewhere in Manhattan, for the purpose of constructing a new building. The project team, which included a real estate consultant, conducted a market survey of land costs, based on what was listed for sale, as well as past recent transactions for land or building that included land. The team determined that the expected cost of a parcel of land required to develop a building of similar size to the one being considered for the DC-5 option would be in the range of $225 to $370 million. Given the advantage of the DC-5 site and the on-campus construction (options 1 and 2) compared with commercial opportunities, option 8 was not further considered as part of the present report.

C. Other factors

1. Architectural integrity of the United Nations compound: findings of architectural historic preservation experts

39. The project team solicited the input of an internationally recognized architectural historic preservation firm to provide an analysis of the United Nations Headquarters campus relative to its inherent architectural and historic value.

40. The United Nations Headquarters complex is an iconic masterpiece of mid-century modernism. It possesses worldwide architectural and historical significance of the highest order and has become a symbol of the mission of the United Nations.

41. The complex is also the functional centre of a dynamic global institution that requires space and flexibility to carry out its vital mission. As set out in the present report, the United Nations has been considering options for constructing approximately 816,337 gross square feet of space to meet its functional needs in an economically sustainable manner. If the new space is to be located within or near the United Nations complex, it should respect the architectural integrity and the symbolic identity of the existing historic design. A historic preservation assessment was undertaken to establish criteria for evaluating the effects of new construction on the existing United Nations complex and to apply those criteria to assessing the impact of new construction on a range of possible sites.

Original design

42. The original architectural scheme for the United Nations complex evolved through many iterations from the late 1940s through the early 1950s. It synthesizes the design work of an international board of consultants comprising some of the finest architects of the twentieth century, including Le Corbusier, Oscar Niemeyer, Wallace Harrison and others. Its unmistakable form is familiar worldwide: the elegant marble, glass and steel slab of the Secretariat Building and the lower, asymmetrically domed mass of the General Assembly Building, visually linked by the long, horizontal podium of the Conference Building, with an open sweep of lawn and garden to the north. The site is bounded to the east by the East River and the Manhattan street grid to the west and south, with a ceremonial entrance at 47th Street and a functional one at 43rd Street. Although it has evolved with the construction of later buildings over time, the United Nations complex retains its original design integrity to a remarkable degree. As the capital master plan is in its final stages, the powerful clarity of the original designers' vision becomes yet more strikingly evident.

Subsequent evolution

43. In the years since its original construction, the architectural evolution of the United Nations complex has been highly respectful of the original design vision. The Dag Hammarskjöld Library of 1963 and the South Annex Building of 1982 reinforce the south edge of the original site and defer to the original buildings in design and massing. The Publishing Annex of 1981 is an underground structure, preserving the open green presence of the North Lawn. The Building at 866-870 United Nations Plaza (1966), while not functionally part of the United Nations complex, maintains the scale and position which the original scheme had set aside for expansion to the north. The many later buildings that border the complex along the west side of First Avenue (One United Nations Plaza, Trump World Tower, the United States Mission building, 50 United Nations Plaza and others) were constructed for a mix of United Nations-related functions and unrelated residential and commercial uses. They all represent a basic approach of openly juxtaposing the United Nations complex with its New York City surroundings. At the same time, the width of First Avenue and the generous setback of the original buildings allow a clear reading of the overall complex and prevent a clash of scales between the United Nations structures and their urban neighbours.

Criteria for evaluating growth

44. Two categories of criteria were considered for evaluating the impact of potential future construction on the architectural and cultural character of the United Nations complex. The first identifies significant and preservation-worthy design principles that are evident in the planning and execution of the complex from its original design and construction through its subsequent evolution. The second category includes formally established historic preservation criteria.

45. Analysis of the United Nations complex has identified five historical design principles that established the fundamental architectural character of the original design. These principles have largely been respected in the subsequent architectural evolution on and around the United Nations site, and they merit further respect in the design and siting of future new construction. The principles include:

(a) *Open site plan.* Structures are organized around an open site plan with landscaped areas situated between the buildings and a major open green area in the northern portion of the site;

(b) *Distinct architectural volumes.* Buildings are arranged to allow for the clear expression of their individual volumes and a legible sense of how the individual volumes are visually and functionally linked;

(c) *View corridors.* Views are unimpeded between the site and its surroundings, including both the East River and the surrounding Manhattan streets;

(d) *Dual zones of access.* The site maintains two distinct points of access from the west: the functional entry at 43rd Street and the ceremonial entry at 47th Street;

(e) *Areas for future growth.* The original design presented site-specific areas for future growth along its north, south and east edges. Subsequent evolution has followed these characteristics of the original design.

46. This assessment considers formally established sets of criteria for evaluating the historic preservation impact of planned alterations and expansions of historic architectural resources:

> International Charter for the Conservation and Restoration of Monuments and Sites (The Venice Charter, 1964)
>
> "Article 1. The concept of a historic monument embraces not only the single architectural work, but also the urban or rural setting in which is found the evidence of a particular civilization, a significant development or historic event.
>
> "Article 6. The conservation of a monument implies preserving the setting which is not out of scale. Wherever the traditional setting exists, it must be kept. No new construction, demolition, or modification which would alter the relations of mass and colour must be allowed.
>
> "Article 13. Additions cannot be allowed except in so far as they do not detract from the interesting parts of the building, its traditional setting, the balance of its components and the relation with its surroundings."

Alternatives and impacts

47. Alternative zones for locating 816,337 gross square feet of new United Nations space were considered in the light of the criteria described above. The zones assessed include four areas within the existing United Nations complex, and one adjacent site located to the south of the existing complex, across 42nd Street. All zones are shown in figure IV below. No other sites outside of the existing complex were included in this assessment, as all other adjacent sites are already occupied by existing buildings of substantial scale and/or function. They are:

(a) North zone: construction in this zone has the potential to approximate the location and footprint of the area historically planned for future growth at the north perimeter of the complex. However, the scale of the new construction is larger than anything envisioned historically. Construction of this scale would not meet the criteria discussed above, including the historical design principles and the formally

established review criteria. It would also have a physical impact on many of the existing mature trees at the north edge of the site;

(b) Central zone: construction in this zone would significantly compromise the open green space, which is a major factor in the first historical design principle identified above. It would also have a negative impact under the other design principles, by compromising the scale, visibility, access and individual volumetric legibility of the existing buildings. In addition, construction in this zone would have a significant physical impact on the existing below-grade facilities;

(c) East zone: construction in this zone would have a major negative impact on views to and from the East River, significantly compromising the iconic composition of the original buildings. It would be contrary both to the historical design principles and to the formally established review criteria;

(d) South zone: construction in this zone would be immediately adjacent to the Secretariat building and would seriously compromise both its scale and its volumetric perception, in contradiction to the historical design principles and formally established review criteria. Construction here would also require the demolition of the existing buildings at the south perimeter of the complex;

(e) Off-complex zone: construction in the zone south of 42nd Street would have the lowest historic preservation impact of any of the alternatives considered. While the new building would be substantial in height and scale, its distance from the existing United Nations buildings and its position on the far side of 42nd Street would create a relationship similar to the juxtaposition between the city and United Nations campus that exists along First Avenue. New construction in this zone would not interfere with the open site plan, scale, distinction of architectural volumes, view corridors, points of access or vision for future growth identified in the five historical design principles. It would also conform to established historic preservation criteria in their concern for site setting integrity, harmony of scale, preservation of existing historic construction and other basic principles.

Figure IV
Areas assessed for future growth

48. Based on the history of the original design, the pattern and character of subsequent evolution, the historical design principles derived from analysis of the existing complex, and the established historic preservation criteria, it was concluded by the architectural preservation experts that the off-complex site south of 42nd Street would be the preferred alternative for expansion of the United Nations complex from the perspective of preserving the architectural integrity of the United Nations campus, as it would adequately respect its iconic historical, cultural and architectural character.

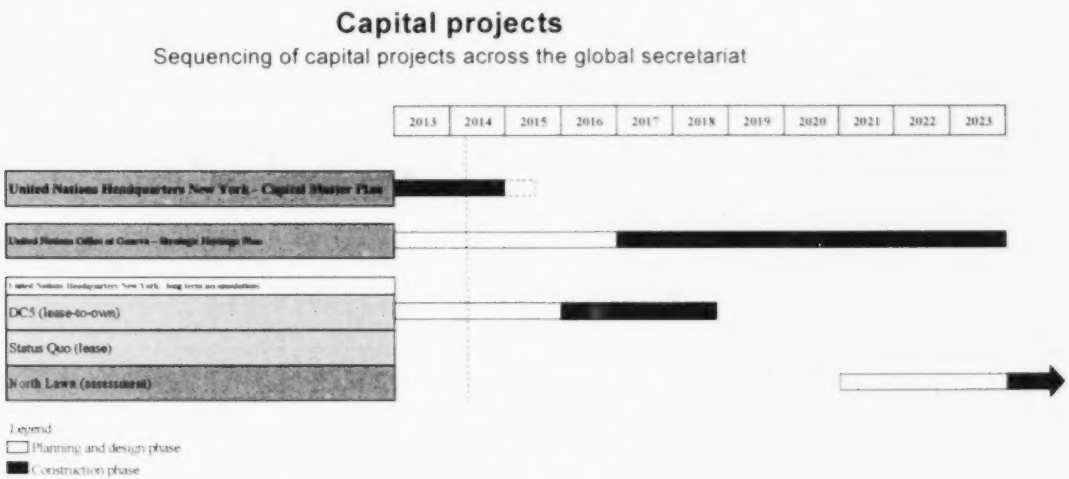
2. Sequencing of capital projects across the global secretariat

49. All consideration of how to meet the long-term accommodation needs of the United Nations are guided by the directives of the General Assembly on the sequencing of capital expenditure projects. In its resolutions 66/247 and 67/254, the General Assembly requested the Secretary-General to ensure that the renovation phase of the strategic heritage plan is not to start before the General Assembly has taken a decision on the matter and the capital master plan has been completed. This means that the completion of the capital master plan is a prerequisite for the commencement of major construction under the strategic heritage plan. Preparatory design and planning work for the strategic heritage plan was authorized by the General Assembly to proceed in the meantime. Further, the Secretary-General has been requested by the Assembly, in resolution 68/247, to ensure that major capital expenditure projects are not implemented simultaneously in order to prevent the need to finance and supervise them at the same time. This directive contains three dimensions, related to: (a) scope ("major capital expenditure projects"); (b) timing ("not to be implemented simultaneously"); and (c) purpose ("to prevent the need to finance and supervise them at the same time").

50. Accordingly, it is the understanding of the Secretariat that upon completion of the capital master plan, capital projects may proceed at the same time if funding arrangements are in place that do not require major capital expenditure by the United Nations, and the project is being undertaken by a third party.

51. The timeline for the sequencing of United Nations capital projects is shown in figure V below.

Figure V
Timeline for the sequencing of United Nations capital projects



3. United Nations credit rating

52. For the purpose of analysing the DC-5 option, it was necessary to conduct an in-depth analysis of the private bond market and how the credit rating of the United Nations (which would underlie the credit rating of the project) affects projected interest rates. The sale of the DC-5 bonds would require the bonds to be rated in an investment-grade category.

53. The credit rating would be based on an analysis of the terms of the lease and debt structure overlaid on an assessment of the creditworthiness of the United Nations relating to the DC-5 project. Should the General Assembly approve the DC-5 option for the long-term accommodation plan, it would be necessary to obtain a credit rating for the United Nations as part of the credit rating for the total project.

54. Table 5 below shows indicative 30-year taxable fixed interest rates based on the three rating categories considered using current rates and an assumed increase of 75 basis points as of the projected financing date of 1 January 2016. The rates are based on a "spread" to the 30-year United States Treasury bond rate estimated using the results of recent taxable municipal debt offerings in New York as guidance. The estimated rate increase as of 2016 is based on a median consensus of projected treasury rates.

55. The United Nations is assumed to be of investment grade credit quality. For purposes of the study, the project costs are calculated using an assumed medium investment grade rating category of A/A, which would result in an estimated future interest rate of 6.2 per cent. A deviation from this rating would result in a change in the interest rate. If, for example, an investment grade rating is Baa/BBB, the estimated difference would be 75 basis points, which would increase the overall costs of the project, by around $200 million over the life of the project.

Table 5

Taxable fixed interest rates					
Rating Category	30Y US Treasury	Spread to US Treasury	Current Rate	Forward Spread[a]	Estimated Future Rate
Aa/AA	3.70%	+ 130 basis points	5.00%	+ 75 basis points	5.75%
A/A	3.70%	+ 175 basis points	5.45%	+ 75 basis points	6.20%
Baa/BBB	3.70%	+ 250 basis points	6.20%	+ 75 basis points	6.95%

[a] Based on Bloomberg economists' median consensus projected United States Treasury rates as at 16 October 2013.

56. The DC-5 bonds are assumed to be structured as taxable, long-term, fixed rate debt issued through the United Nations Development Corporation as a conduit. The amount of the bond has been sized to provide sufficient funds for land, the construction of the building, and the interest due.

D. Comparative evaluation

57. In order to thoroughly analyse the total costs of each option studied, the project team projected total costs over a 50-year period, from 2014 through 2064, for each of the three options and for each of the three population scenarios. In other words, the study included nine detailed financial models.

58. The models were inclusive of all anticipated project costs, including hard and soft project capital costs, financing costs (if applicable), and long-term operational costs. Hard costs include construction trade costs and construction management fees, construction contingencies, insurances and cost escalation. Soft costs include design fees, programme management/owners representation fees, legal, design contingencies and staff costs.

59. Operational costs (also referred to as occupancy costs) include utilities, cleaning, repairs and maintenance, groundskeeping, security, and administrative costs. An annual contribution to a capital reserve fund is also included for the two owned options, in order to preserve property value over the life of a new building.

60. Once the total costs were determined, the team also calculated the net present value of each option. The term "net present value" describes a central tool in discounted cash flow analysis and is a standard method for using the time value of money to appraise long-term projects. It compares the present value of money today to the present value of money in the future, taking inflation and returns into account. In other words, it provides a robust comparison — on an "apples to apples" basis — of the financial costs/benefits, on a common present value (or cost) basis, of the different options being considered in the present report.

61. A summary of the cost comparison is provided in table 6 below. A detailed breakdown of the costs is provided in annex II to the present report.

Table 6
Comparison of the three viable options

	North Lawn assessment	*DC-5*	*Status quo*
Qualitative considerations			
Adherence to United Nations objectives: efficiency, increased security, campus effect	High	High	Low — United Nations population would be distributed among multiple buildings
Ownership ratio (owned/leased)			
No growth	80/20	80/20	52/48
1.1 per cent growth	64/36	64/36	42/58
0.5 per cent decrease	89/11	89/11	58/42
Flexibility to contract space portfolio	Possible by constructing smaller building or reduced leasing	Possible by reducing leased space in DC-1 or DC-2	Possible by reducing leased space; entering into some short-term leases
Financing considerations			
Funding	Through assessment of Member States	Through a United Nations Development Corporation-issued bond, paid with interest over 30-year period	Not applicable
Cost of new building (total project costs: construction cost and financing, as applicable)	$1.318 billion[a]	$1.479 billion[a]	Not applicable
Total option costs to 2064			
1.1 per cent growth	$10.622 billion	$10.907 billion	$14.407 billion
No growth	$6.790 billion	$7.075 billion	$10.730 billion
0.5 per cent decrease	$5.418 billion	$5.732 billion	$9.127 billion

	North Lawn assessment	*DC-5*	*Status quo*
Project costs, 2014 net present value			
1.1 per cent growth	$5.103 billion	$5.662 billion	$6.069 billion
No growth	$3.530 billion	$4.082 billion	$4.551 billion
0.5 per cent decrease	$3.001 billion	$3.571 billion	$3.914 billion
Market related	Not applicable	Proposal by the United Nations Development Corporation is governed by a memorandum of understanding	The United Nations would remain subject to a volatile rental market
Residual value of asset(s)	$1.040 billion, using depreciated replacement cost; cannot be sold	$2.080 billion, using income approach; new building can be sold at market value after 30 years	Not applicable

[a] Costs for options 1 and 3 have increased since the previous report (A/67/720) owing to construction escalation, an increase in the projected interest rate (for option 3), and the inclusion of associated costs, which were not included in the previous costs, such as furniture.

62. In addition to the qualitative and cost considerations summarized above, other additional non-quantifiable criteria need to be considered. These include the benefits of ownership and of consolidating staff into an integrated campus. The beneficial effects of consolidation include a higher level of predictability and stability of office space requirements, additional efficiency in space planning of large areas, saving of travel time between different locations, and a higher level of productivity, staff morale and quality of work owing to the improved quality of the physical work environment. Both the North Lawn and DC-5 options offer these benefits, while the status quo option does not.

IV. Dag Hammarskjöld Library and South Annex Buildings

63. The General Assembly, in part III of its resolution 67/254 A, requested information on options for the renovation of the South Annex Building and the Dag Hammarskjöld Library Building. Accordingly, the Secretary-General is providing that information in a separate report, in the context of the capital master plan to the General Assembly at its resumed sixty-eighth session.

64. Certain assumptions regarding the future of the existing Dag Hammarskjöld Library and South Annex Buildings were included in the study of long-term

accommodation needs for planning purposes, which are derived from the eleventh annual progress report of the Secretary-General on the implementation of the capital master plan (A/68/352).

65. The present study assumes that the functions of the South Annex Building and the Dag Hammarskjöld Library Building would be accommodated in the long-term as follows:

(a) For the North Lawn or DC-5 options, the functions would be included in the buildings. From the period covering the time after which the buildings are no longer operational, to the time that a new building is built, the medium-term option contained in the eleventh progress report (A/68/352) would be implemented;

(b) For the status quo option, the medium-term option would continue indefinitely.

V. Resource requirements

66. Of the options being considered, only option 3, DC-5, would require dedicated resources for the biennium 2014-2015. These would include a small liaison team within the Office of Central Support Services to coordinate with the United Nations Development Corporation. Should the General Assembly decide to proceed with option 3, a request for resources will be submitted separately.

67. Option 1 would require the establishment of a dedicated project team to directly manage the design and construction process. Such a team would comprise highly qualified staff with expertise in managing capital projects, including architects, engineers, cost planners and administrative staff. The dedicated resources would not be required until the time that the project would be implemented. For planning purposes, estimates for these resources are included in the financial model, but are not developed in detail.

VI. Actions to be taken by the General Assembly

68. **The General Assembly is requested to:**

(a) **Take note of the report of the Secretary-General;**

(b) **Approve the most preferred option and authorize the Secretary-General to take the steps necessary for implementation.**

Annex I

Key data for studied options 1, 3 and 4

Option 1: North Lawn

Building size: 816,337 gross square feet
Height: 482'-6"
Floors: 31

Office space
421,837 gross square feet
17 floors

Common and building support space
394,500 gross square feet
14 floors

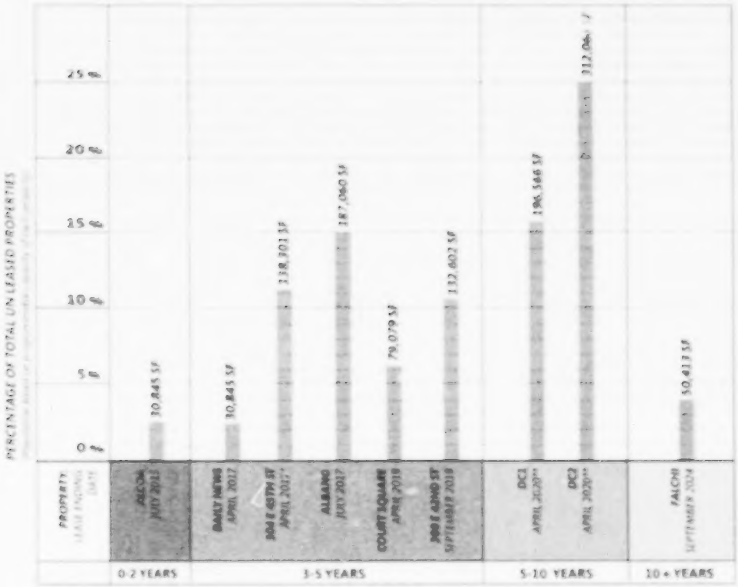
Option 3: DC-5

Building size: 816,337 gross square feet
Height: 494'-0"
Floors: 32

Office space
421,837 gross square feet
18 floors

Common and building support space
394,500 gross square feet
14 floors

Option 4: status quo



* Multiple leases are held at this property, expiring from 2012-2017.

** The option to renew the leases for DC-1 and DC-2 at the same rate extends until 2023.

Annex II

Financial analysis of options

Long-term accommodation cost (2014-2064)

Total cost

(Thousands of United States dollars)

	New building		*Current leases*		*Additional market leases*		*Total*		
	Occupancy cost	*One-time costs*	*Occupancy cost*	*One-time costs*	*Occupancy cost*	*One-time costs*	*Occupancy cost*	*One-time costs*	*Total cost*
No growth									
North Lawn assessment	1 872 600	1 318 500	799 200	–	2 701 900	98 200	5 373 700	1 416 700	6 790 400
DC-5	3 785 000	–	234 300	–	2 969 100	86 100	6 988 400	86 100	7 074 500
Status quo	–	–	515 200	31 700	9 865 500	317 900	10 380 700	349 600	10 730 300
0.5 per cent decrease									
North Lawn assessment	1 872 600	1 318 500	757 400	–	1 394 900	74 200	4 024 900	1 392 700	5 417 600
DC-5	3 785 000	–	234 300	–	1 639 500	73 400	5 658 800	73 400	5 732 200
Status quo	–	–	502 000	31 700	8 297 600	295 300	8 799 600	327 000	9 126 600
1.1 per cent growth									
North Lawn assessment	1 872 600	1 318 500	799 200	–	6 417 000	214 700	9 088 800	1 533 200	10 622 000
DC-5	3 785 000	–	234 300	–	6 687 400	200 300	10 706 700	200 300	10 907 000
Status quo	–	–	515 200	31 700	13 425 400	434 200	13 940 600	465 900	14 406 500

Current value in 2014 dollars

(Thousands of United States dollars)

	New building		*Current leases*		*Additional market leases*		*Total*		
	Occupancy cost	*One-time costs*	*Occupancy cost*	*One-time costs*	*Occupancy cost*	*One-time costs*	*Occupancy cost*	*One-time costs*	*Total cost*
No growth									
North Lawn assessment	873 100	924 200	653 500	–	1 010 200	66 900	2 536 800	991 100	3 527 900
DC-5	2 570 500	–	217 500	–	1 220 400	74 300	4 008 400	74 300	4 082 700
Status quo	–	–	445 700	27 400	3 840 800	236 600	4 286 500	264 000	4 550 500

	New building		*Current leases*		*Additional market leases*		*Total*		
	Occupancy cost	*One-time costs*	*Occupancy cost*	*One-time costs*	*Occupancy cost*	*One-time costs*	*Occupancy cost*	*One-time costs*	*Total cost*
0.5 per cent decrease									
North Lawn assessment	873 100	924 200	621 300	–	532 200	50 500	2 026 600	974 700	3 001 300
DC -5	2 570 500	–	217 500	–	719 800	63 400	3 507 800	63 400	3 571 200
Status quo	–	–	434 900	27 400	3 232 200	219 700	3 667 100	247 100	3 914 200
1.1 per cent growth									
North Lawn assessment	873 100	924 200	653 500	–	2 494 500	157 300	4 021 100	1 081 500	5 102 600
DC -5	2 570 500	–	217 500	–	2 710 800	162 700	5 498 800	162 700	5 661 500
Status quo	–	–	445 700	27 400	5 268 400	327 100	5 714 100	354 500	6 068 600